# Article information:

Parabrachial-to-parasubthalamic nucleus pathway mediates fear-induced suppression of feeding in male mice - PMC  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9803671/>

# Article summary:

1. The lateral parabrachial nucleus (lPB) plays a key role in nociception and stress, and is involved in feeding suppression induced by fear.

2. Optogenetic activation of lPB-PSTN terminals in male mice promotes avoidance behaviors, aversive learning, and suppressed feeding.

3. Activation of PSTN neurons expressing pituitary adenylate cyclase-activating polypeptide (PACAP) is sufficient for inducing avoidance behaviors and feeding suppression.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Parabrachial-to-parasubthalamic nucleus pathway mediates fear-induced suppression of feeding in male mice” provides an interesting insight into the neural pathways involved in fear-induced feeding suppression. The authors provide evidence that the lateral parabrachial nucleus (lPB) plays a key role in this process, as well as optogenetic activation of lPB-PSTN terminals promoting avoidance behaviors, aversive learning, and suppressed feeding. Furthermore, they demonstrate that activation of PSTN neurons expressing pituitary adenylate cyclase-activating polypeptide (PACAP) is sufficient for inducing avoidance behaviors and feeding suppression.

The article appears to be reliable overall; it is published in Nature Communications, which is a reputable journal with high standards for publication. The authors also provide evidence from experiments conducted on mice to support their claims, which adds credibility to their findings. Additionally, the article does not appear to be biased or one-sided; it presents both sides of the argument equally and does not make any unsupported claims or omit any points of consideration.

However, there are some potential issues with the article that should be noted. Firstly, the study only focuses on male mice; while this may be due to practical reasons such as sample size constraints or time limitations, it would have been beneficial if the authors had included female mice as well so that they could compare results between genders. Secondly, while the authors do mention possible risks associated with optogenetics such as tissue damage or infection from viral vectors used for gene delivery, they do not discuss any potential ethical implications associated with using animals for research purposes or how these risks can be minimized when conducting experiments on animals. Finally, while PACAP has been linked to chronic pain and anxiety disorders in humans22–29 ,the authors do not discuss how their findings could potentially be applied to humans or what further research needs to be done before these findings can be translated into clinical practice.

In conclusion, this article provides an interesting insight into the neural pathways involved in fear-induced feeding suppression and appears to be reliable overall; however there are some potential issues that should be noted such as its focus on male mice only and lack of discussion regarding ethical considerations or potential applications to humans.

# Topics for further research:

* Ethical considerations of animal research
* Optogenetics risks and safety
* PACAP and chronic pain
* PACAP and anxiety disorders
* Fear-induced feeding suppression in female mice
* Translating research findings into clinical practice

# Report location:

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